AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1   (currently amended): A wireless LAN system comprising:

at least one base station;

at least one wireless LAN terminal connected to said base station via a wireless LAN; and

a packet transmission system for transmitting a packet between said base station and said at least one wireless LAN terminal via the wireless LAN, said packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating at least one of the packets accumulated in said accumulating means into at least one capsulated packet; and

transmitting means for transmitting the said capsulated packet capsulated by said capsulating means.

Claim 2   (currently amended): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises arbitrating means for

transmitting delay request information for delaying transmission of packets from said base

station ~~equipment~~ to said wireless LAN terminal such that the packet transmission does not

overlap with other terminals, thereby arbitrating transmission of packets from said wireless LAN

terminal to said base station ~~equipment~~ so as not to cause a collision thereof.

Claim 3   (currently amended): The wireless LAN system according to claim 1,

wherein said wireless LAN terminal is associated with a PCF mode, and said base station

sets a NAV time and gives timing provided to transmit ~~a~~ said capsulated packet, to said wireless

LAN terminal.

Claim 4   (currently amended): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises means for adjusting a period

for transmitting ~~a~~ said capsulated packet according to ~~the~~ a number of real time sessions active

via said base station.

Claim 5   (currently amended): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises means for collecting CODEC

minimal periods corresponding to ~~the number~~all of said wireless LAN terminals connected to

each of ~~set every~~ said base stations and ~~adjusting the longest CODEC period of the resultant~~

~~minimal periods~~setting ~~as a transmission period of each capsulated packet~~the longest of said

CODEC minimal periods of all of said wireless terminals connected to each respective base

station as a transmission period of each capsulated packet for said respective base station.

Claim 6   (currently amended): The wireless LAN system according to claim 1, further

comprising:

an IP exchanger having said packet transmission system;

a table in which IP addresses of the wireless LAN terminal connected to every said base

station and information indicative of whether said at least one wireless LAN terminal is able to

receive capsulated packets are registered; and

means for performing control for allowing said IP exchanger to capsulate prioritized

packets based on the information registered in said table and causing said IP exchanger to

transmit ~~the~~ said capsulated packet, if transmission destination IP addresses of received packets

respectively correspond to IP addresses of said wireless LAN terminal and said wireless LAN

terminal is able to receive said capsulated packets, and allowing said IP exchanger to transmit the

received packets to said base station ~~as they are if not so~~without encapsulation if said wireless

LAN terminal is not able to receive said capsulated packets.

Claim 7   (currently amended): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises:

arithmetic means for computing use efficiency of a general queue for accumulating the

non-prioritized packets, using a predetermined arithmetic expression; and

control means for changing coefficients of the arithmetic expression according to ~~the~~ a

state of accumulation of the general queue, thereby controlling ~~the~~ a value of the use efficiency

computed by said arithmetic means.

Claim 8   (original): The wireless LAN system according to claim 7,

wherein said predetermined arithmetic expression is represented as follows:

$$RTT = (\alpha \times K \times 01d\_RTT) + ((1-\alpha) \times New\_Round\_Time\_Sample)$$

$$0 \leq \alpha < 1, 0 < K \leq 1$$

where 01d_RTT indicates an RTT value up to date, New_Round_Time_Sample indicates

the time from the transmission of the latest TCP packet to the reception of an ACK, and K and α

indicate coefficients, and

said control means changes the value of the coefficient K according to the state of

accumulation of the general queue.

Claims 9-17   (canceled).

Claim 18   (previously presented): A packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized

packets;

accumulating means for accumulating the prioritized packets sorted by said sorting

means;

capsulating means for capsulating the packets accumulated in said accumulating means;

and

transmitting means for transmitting the packet capsulated by said capsulating means,

wherein said transmitting means transmits the capsulated packet in matching with a CODEC

period, the transmitting means transmitting the capsulated packet in a period T that satisfies $d \leq$

$T \leq C$ where the CODEC period is C and the minimum period necessary for terminal reception is

d.

Claims 19-25 (canceled).

Claim 26   (new): A base station including a packet transmission system which comprises:

sorting means for sorting received packets into prioritized packets and packets

other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said

sorting means;

capsulating means for capsulating more than one of the packets accumulated in

said accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said

capsulating means.

Claim 27   (new): A wireless LAN terminal including a packet transmission system which comprises:

sorting means for sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating more than one of the packets accumulated in said accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said capsulating means.

Claim 28   (new): The wireless LAN terminal according to claim 27, wherein said sorting means further sorts the prioritized packets into moving pictures and voice packets.

Claim 29   (new): The wireless LAN terminal according to claim 27, wherein only when the received packets are UDP and IP ports coincide with IP ports registered in advance respectively, said sorting means sorts the received packets into the prioritized packets.

Claim 30   (new): The wireless LAN terminal according to claim 27, wherein said sorting means sets queues to general packets other than the prioritized packets every MAC addresses.

Claim 31   (new): The wireless LAN terminal according to claim 27, wherein said

transmitting means transmits prioritized capsulated packets with general packets being

respectively interrupted between the prioritized capsulated packets.

Claim 32   (new): A packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and packets

other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said

sorting means;

capsulating means for capsulating more than one of the packets accumulated in

said accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said

capsulating means.

Claim 33   (new): The packet transmission system according to claim 33,   wherein said

transmitting means transmits said capsulated packet in matching with a CODEC period.

Claim 34   (new): The packet transmission system according to claim 33,   wherein said

sorting means further sorts the prioritized packets into moving picture packets and voice packets,

and said capsulating means capsulates the prioritized packets every moving picture and voice

packets.

Claim 35   (new): The packet transmission system according to claim 33,   wherein only when the received packets are UDP and IP ports coincide with IP ports registered in advance respectively, said sorting means sorts the received packets into the prioritized packets.

Claim 36   (new): The packet transmission system according to claim 33,   wherein said sorting means sets queues to general packets other than the prioritized packets every MAC addresses.

Claim 37   (new): The packet transmission system according to claim 33,   wherein a capsulated packet transmission period of said transmitting means is counted by an interval timer.

Claim 38   (new): The packet transmission system according to claim 33,   wherein said transmitting means transmits prioritized capsulated packets with general packets being respectively interrupted between the prioritized capsulated packets.

Claim 39   (new): A packet transmission method comprising the steps of:

sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating the sorted prioritized packets;

capsulating more than one of the accumulated packets into one capsulated packet; and

transmitting said capsulated packet.

Claim 40   (new): A wireless LAN system comprising:

at least one base station;

at least one wireless LAN terminal connected to said base station via a wireless LAN; and

a packet transmission system for transmitting a packet between said base station and said at least one wireless LAN terminal via the wireless LAN, said packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating more than one of the packets accumulated in said accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said capsulating means.